JS 10/21/21
RJA 01/13/21

Ecotox Report for Case # P-18-0118

General

[redacted]

Report Status: Complete
Status Date: 02/22/2019
CRSS Date: 03/05/2018
SAT Date: 03/06/2018
SAT Chair: William Irwin
Consolidated PMN: Y
Consolidated Set: P-18-0119
Ecotox Related Cases: [redacted]
Health Related Cases: [redacted]
Submitter: H.B. Fuller Company
CAS Number: [redacted]
Chemical Name: [redacted]
Use: [redacted] industrial adhesives [redacted]. Consolidated Set P-18-0118-19. [redacted]
Trade Name: None
PV-max(kg/yr): 30000.0000
Ecotox Assessor: Muneer, Alie

Fate Summary Statement

Fate Summary Statement: P-18-0118-19

FATE: MW = [redacted] with [redacted] < 500 and [redacted] < 1000 [redacted] with MP
< 25 °C (E)
S = Reacts
Hydrolysis half-life = min-hr
VP
< 1.0E-6 torr at 25 °C (E)
BP > 400 °C (E)
H < 1.00E-8

(E)
POTW removal (%) = PMN 90-99 via hydrolysis; then Hyd Pdt 90 via sorption
Time for complete ultimate aerobic biodeg = Hyd Pdt > mo

Sorption to soils/sediments = Hyd Pdt v.strong
PBT Potential: PMN
P1B1; Hyd Pdt P3B1
*CEB FATE: Migration to ground water = Hyd Pdt
negl

Physical Chemical Information

Molecular Weight:	[redacted]		
Wt% < 500:	[redacted]	**Wt% < 1000:**	[redacted]
Physical State - Neat:	[redacted]		
Melting Point:		**Melting Point (est):**	
MP (EPI):			
Vapor Pressure:		**Vapor Pressure (est):**	<0.000001
VP (EPI):			
Water Solubility:		**Water Solubility (est):**	Reacts
Water Solubility (EPI):			
Henry's Law::			
Log Koc:		**Log Koc (EPI):**	
Log Kow:		**Log Kow (EPI):**	
Log Kow Comment:			

SAT Concern Level

Ecotox Rating (1):	1
Ecotox Rating Comment (1):	
Ecotox Rating (2):	

Ecotox Rating Comment (2):	
Ecotox Route of Exposure:	No releases to water

Ecotox Comments

Exposure Based Review (Eco):	N
Ecotox Comments:	
Exposure Based Testing:	

PBT Ratings

Persistence	Bioaccumulation	Toxicity	Comments
1	1	1	PMN
3	1		Hyd Pdt

Eco-Toxicity Comment:

Fate Ratings

Removal in WWT/POTW (Overall):	90-99;90

Condition	Rating Values	Rating Description 1	2	3	4	Comment
Fish BCF:						
Log Fish BCF:						
WWT/POTW Sorption:	;3	Low	Moderate	Strong	V. Strong	
WWT/POTW Stripping:	;4	Extensive	Moderate	Low	Negligible	
Biodegradation Removal:	;4	Unknown	High	Moderate	Negligible	
Biodegradation Destruction:		Unknown	Complete	Partial	—	
Aerobic Biodeg Ult:	;4	<= Days	Weeks	Months	> Months	

Removal in WWT/POTW (Overall):	90-99;90					
Condition	**Rating Values**	**Rating Description**				**Comment**
		1	**2**	**3**	**4**	
Aerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Ult:	;4	<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Hydrolysis (t1/2 at pH 7,25C) A:		<= Minutes	Hours	Days	>= Months	-N=C=O
Hydrolysis (t1/2 at pH 7,25C) B:		<= Minutes	Hours	Days	>= Months	
Sorption to Soils/Sediments:	;1	V. Strong	Strong	Moderate	Low	
Migration to Ground Water:	;1	Negligible	Slow	Moderate	Rapid	Hyd Pdt negl
Photolysis A, Direct:		Negligible	Slow	Moderate	Rapid	
Photolysis B, Indirect:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox A, OH:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox B, O3:		Negligible	Slow	Moderate	Rapid	

Bio Comments: PMN;Hyd Pdt, The substance will hydrolyze with a half-life of hours-days to yield the structure with NH2 groups in place of the terminal N=C=O groups.

Fate Comments: PMN
Material:
Overall wastewater treatment removal is 90-99% via hydrolysis (hydrolysis half-life: minutes to hours).
PMN Material:

Low Persistence (P1) is based on hydrolysis (hydrolysis half-life: minutes to hours).
Low Bioaccumulation potential (B1) is based on hydrolysis (hydrolysis half-life: minutes to hours).
Hydrolysis
Product:
Overall wastewater treatment removal is 90% via sorption.

Removal in WWT/POTW (Overall):	90-99;90					
Condition	**Rating Values**	**Rating Description** 1	2	3	4	**Comment**
		Sorption to sludge is strong based on high molecular volume. Air Stripping (Volatilization to air) is negligible based on high molecular volume. Removal by biodegradation in wastewater treatment is negligible based on high molecular volume. The aerobic aquatic biodegradation half-life is greater than months based on high molecular volume. The anaerobic aquatic biodegradation half-life is greater than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is projected to be greater than or equal to the aerobic biodegradation half-life. Sorption to soil and sediment is very strong based on high molecular volume. Migration to groundwater is negligible based on high molecular volume. Hydrolysis Product: High Persistence (P3) is based on the estimated anaerobic biodegradation half-life and high molecular volume. Low Bioaccumulation potential (B1) is based on high molecular volume. Bioconcentration/Bioaccumulation factor to be put into E-Fast: N/A.				

Ecotoxicity Values

Test organism	Test Type	Test Endpoint	Predicted	Experimental	Comments
Fish	96-h	LC50	*		*=no effects at saturation; [redacted]
Daphnid	48-h	LC50	*		*=no effects at saturation;

Test organism	Test Type	Test Endpoint	Predicted	Experimental	Comments
Green Algae	96-h	EC50	*		*=no effects at saturation; [redacted]
Fish	-	Chronic Value	*		*=no effects at saturation; [redacted]
Daphnid	-	Chronic Value	*		*=no effects at saturation; [redacted]
Green Algae	-	Chronic Value	*		*=no effects at saturation; [redacted]

Ecotox Value Comments: Predictions based on the [redacted] water solubility of P-18-0118; MW [redacted] with [redacted] <500 and [redacted] <1000; [redacted] with an unknown MP (P); S = [redacted] (P), reacts (M); effective concentrations based on 100% active ingredients and mean measured concentrations;

Test organism	Test Type	Test Endpoint	Predicted	Experimental	Comments
	hardness <150 mg/L as CaCO3; and TOC <2.0 mg/L.				

Ecotox Factors

Factors	Most Sensitive Endpoint	Assessment Factor	CoC	Comment
Acute Aquatic (ppb):				Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not identified.
Chronic Aquatic (ppb):				Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not identified.

Factors	Values	Comments
SARs:	Nonionic Polymers	
SAR Class:	Nonionic polymers-[redacted]-isocyanate	
TSCA NCC Category?	None	

Recommended Testing:

Ecotox Factors Comments: Environmental Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risk because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA estimated environmental hazard of this new chemical substance using predictions based on the [redacted] water solubility of P-18-0118 ([redacted] nonionic polymer; MW [redacted] with [redacted] % <500 and [redacted] % < 1000). Acute and chronic toxicity values estimated for fish, aquatic invertebrates, and algae are all no effects at saturation. These toxicity values indicate that the new chemical substance is expected to have low environmental hazard. Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not

identified.

Environmental Risk: Risks to the environment from acute and chronic exposure are not expected at any concentration of the new chemical substance soluble in the water (i.e., no effects at saturation).

Comments/Telephone Log

Artifact	Update/Upload Time
[redacted]	[redacted]